		IC10 Rec'd PCT/PTO 1 3 DEC 2004			
FORM PTO-1390 (REV. 11-2000) US DE	PARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTORNEY'S DOCKET NUMBER 2001			
TRANSMITTAL LETTER	TO THE UNITED STATES	0471-0268P			
DESIGNATED/ELECTED OFFICE (DO/EO/US) U.S. APPLICATION NO. (If known, see 37 CFR 1)					
CONCERNING A FILING UNDER 35 U.S.C. 371 10/009689					
INTERNATIONAL APPLICATION NO.	INTERNATIONAL FILING DATE	PRIORITY DATE CLAIMED			
PCT/EP00/05383	June 13, 2000	June 14, 1999			
TITLE OF INVENTION					
	S CONTAINING 8-CHLORO-3(ß-DIETH RIN BASE AND THE SALTS THEREOF,				
APPLICANT(S) FOR DO/EO/US	Carla; DI SANTE, Giuseppe; FIN				
	s Designated/Elected Office (DO/EO/US) the follo				
		3			
1. This is a FIRST submission of items concern This is a SECOND as SUBSECULARITY		G 271			
	bmission of items concerning a filing under 35 U.S.				
	examination procedures (35 U.S.C. 371(f)) at a applicable time limit set in 35 U.S.C. 371(b) at				
	tion of 19 months from the priority date (Artic	· · · · · · · · · · · · · · · · · · ·			
5. A copy of the International Application	• • •				
· · · · · · · · · · · · · · · · · · ·	ed only if not transmitted by the International I	Bureau). PCT/EP00/05383			
b. A has been transmitted by the Int		,			
c. is not required, as the application of the control of the contr	on was filed in the United States Receiving Of	fice (RO/US).			
6 An English language translation of t	he International Application as filed (35 U.S.C	C. 371(c)(2)).			
a. is transmitted herewith. b. has been previously submitted					
b. has been previously submitted	under 35 U.S.C. 154(d)(4)				
	ernational Application under PCT Article 19 (3	5 U.S.C. 371(c)(3)).			
a. are transmitted herewith (requi	ired only if not transmitted by the International	Bureau).			
b. have been transmitted by the I					
	the time limit for making such amendments ha	as NOT expired.			
d. An English language translation of the		10 (25) (2 (2 (2 (2 (2 (2 (2 (2 (2 (2 (2 (2 (2			
	the amendments to the claims under PCT Articl	e 19 (35 U.S.C. 3/1(c)(3)).			
	****	amination Danceton London BOT Article 20			
An English language translation of the (35 U.S.C. 371(c)(5)).	he annexes of the International Preliminary Ex	amination Report under PC1 Article 36			
Items 11. to 20. below concern document(s)	or information included:				
11. An Information Disclosure Statement under 37 CFR 1.97 and 1.98, Form PTO-1449(s), and International Search Report (PCT/ISA/210 and PCT/ISA/220) with 3 cited document(s).					
12. An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.					
13. A FIRST preliminary amendment.					
14. A SECOND or SUBSEQUENT preliminary amendment.					
15. A substitute specification.					
16. A change of power of attorney and/o	or address letter.				
F=3	quence listing in accordance with PCT Rule 13	ter.2 and 35 U.S.C. 1.821-1.825.			
	rnational application under 35 U.S.C. 154(d)(4)	·			
<u> </u>	ge translation of the international application u	ınder 35 U.S.C. 154(d)(4).			
20. Other items or information:					
1. PCT/IPEA/416 2. PCT/IPEA/409					
3. Three (3) Sheets of Formal Drawi	ngs				
*ACTIVITY	•				

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U.S. APPLICATION NO (if known, see 37 C	J.S. APPLICATION NO (if known, see 37 CFR 1 5) INTERNATIONAL APPLICATION NO				ATTORNEY'S DOCKET NUMBER			
1 0 N/V	009689		PCT/EP00/053	383		1-0268P		
21. The following fees	are submitted:				CA	LCULATIONS	PTO USE ONLY	
BASIC NATIONAL FEE (37 CFR 1.492(a)(1)-(5):								
Neither international preliminary examination fee (37 CFR 1.482) nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO								
and International Search Report not prepared by the EPO or JPO								
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but international search	1 fee (3 / CFR 1.445(a)	(2)) paid	i to USPTO	\$740.00				
International prelimina								
but all claims did not s	atisfy provisions of PC	T Articl	e 33(1)-(4)	\$710.00	1			
International prelimina	ry examination fee (37	CFR 1.	482) paid to USPTO		<u> </u>			
and all claims satisfied	-	•	, . ,	\$100.00	s	890.00		
			FEE AMOUNT =	<u> </u>				
Surcharge of \$130.00 for months from the earlies				⊠ 30	\$	130.00		
CLAIMS	NUMBER FILE		NUMBER EXTRA	RATE			L <u></u>	
Total Claims	9 - 20 =		0	X \$18.00	\$	0		
Independent Claims	4 - 3 =		1	X \$84.00	\$	84.00		
MULTIPLE DEPEND	ENT CLAIM(S) (if app	+ \$280.00	\$	280.00				
			OF ABOVE CALCULA		\$_	1384.00		
TApplicant claims si reduced by 1/2.	mall entity status. See I	37 CFR	1.27. The fees indicated at	oove are	\$			
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Processing fee of \$130. months from the earlies]20 <u>30</u>	\$			
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accompanied by an app	propriate cover sheet (3	7 CFR 3	3.28, 3.31). \$40.00 per pro		\$	1384.00		
ij 763			TOTAL FEES ENC	LOSED -	+-	Amount to be:		
					L	refunded	\$	
					<u> </u>	charged	\$	
a. A check in the ar	mount of \$ <u>1384.00</u> to	cover th	ne above fees is enclosed.					
b. Please charge my Deposit Account. No in the amount of \$ to cover the above fees.								
A duplicate copy of this sheet is enclosed.								
c. The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 02-2448.								
NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.								
Send all correspondence to								
Birch, Stewart, Kolasch & Birch, LLP or Customer No. 2292								
P.O. Box 747 Falls Church, VA 2	2040-0747				1	_		
(703) 205-8000					//.			
Date: <u>December 13,</u>	2001			By /	uß:	FUN #32	\$	
		_	~	Raym	ond C	C. Stewart, #21,0	66	
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JC13 Rec'd PCT/PTC 1 3 DEC 2001

PATENT 0471-0268P

IN THE U.S. PATENT AND TRADEMARK OFFICE

Applicant:

BEVILACQUA, Carla et al.

Int'l. Appl. No.: PCT/EP00/05383

Appl. No.:

NEW

Group:

Filed:

December 13, 2001

Examiner:

For:

PHARMACEUTICAL

COMPOSITIONS

CONTAINING

8-CHLORO-3 (ß-

DIETHYLAMINOETHYL) -4-METHYL-7-ETHOXYCARBONYL-METHOXY

COUMARIN

BASE AND THE SALTS THEREOF, CHOLESTEROL-LOWERING ACTIVITY

PRELIMINARY AMENDMENT

BOX PATENT APPLICATION

Assistant Commissioner for Patents Washington, DC 20231

December 13, 2001

Sir:

following Preliminary Amendments and Remarks are respectfully submitted in connection with the above-identified application.

AMENDMENTS

IN THE SPECIFICATION:

Please amend the specification as follows:

Before line 1, insert -- This application is the national phase under 35 U.S.C. § 371 of PCT International Application No. PCT/EP00/05383 which has an International filing date of June 13, 2000, which designated the United States of America and was published in English .--

RCS/sll

0471-0268P

REMARKS

The specification has been amended to provide a cross-reference to the previously filed International Application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

BIRCH, STEWART, KOLASCH & BIRCH, LLP

y_//

RayMond C. Stewart, #21,066

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(703) 205-8000

PCT/EP00/05383

PHARMACEUTICAL COMPOSITIONS CONTAINING 8-CHLORO-3(β-DIETHYLAMINOETHYL)-4-METHYL-7-ETHOXYCARBONYL-METHOXY COUMARIN BASE AND THE SALTS THEREOF, WITH CHOLESTEROL-LOWERING ACTIVITY

SUBJECT OF THE INVENTION

The present invention concerns the use of cloricromene (8-chloro-3(β -diethylaminoethyl)-4-methyl-7-ethoxycarbonylmethoxy coumarin) base and the salts thereof to prepare pharmaceutical compositions with cholesterol-lowering activity.

FIELD OF THE INVENTION

Coumarins include a vast class of phenol substances found in plants, and they are constituted by a benzene ring and an α -pyrone ring fused together.

At least 1,300 coumarins have been identified to date, mainly as metabolites of green plants, in fungi and bacteria.

Cloricromene belongs to the coumarin family and is prepared by the process described in U.S. patents No.s 4,296,039 and 4,452,811 by the Applicant. Its formula is

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The selective insertion of a chlorine atom in position 8 of the coumarin gives the molecule a coronary vasodilatory property, an antiarhythmic activity (US 4,349,566) and an anti-platelet-aggregation activity (US 4,302,741); see also "The Merck Index", twelfth Edition, 2467.

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It has now surprisingly been found that cloricromene can also be used as a cholesterol-lowering agent. Data in the literature indicate a cholesterol-lowering effect of a coumarin derivative of vegetable origin demonstrated on a single experimental model (Huang et al.: British Journal of Pharmacology 1993: 110: 1508-1514; Chen et al.: Morphological evidence for the antiatherogenic effect of scoparone of formula

in hyperlipidaemic diabetic rabbits. Cardiovascular Research 1994: 28: 1679-1685).

It is known that high plasma values of total cholesterol or cholesterol bound to the low density lipoprotein represent a major risk factor in arteriosclerotic phenomena responsible for most cases of myocardial or cerebral infarct.

In particular, when plasma cholesterol levels rise above 220 mg/dl, a marked increase in myocardial infarct has been observed.

High cholesterol levels are often seen in patients suffering from vascular diseases caused, for example, by old age, obesity or cardiac disorders.

The first step in treatment for all kinds of hyperlipoproteinaemia is to prescribe a diet to maintain normal body weight and to decrease the lipid concentration in the plasma.

Moreover, dyslipidaemic individuals should keep all other risk factors that might accelerate the arteriosclerotic process to a minimum, by treating hypertension, keeping in check their blood glucose levels in the case of diabetics, giving up smoking and taking plenty of physical exercise.

Lastly, the therapeutic strategy for hyperlipoproteinaemia consists in administering drugs able to reduce the plasma concentration of lipoproteins,

10 10 mg/m mg/m mg/m 15

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reducing their production or increasing their elimination from the plasma.

Of the drugs that reduce the concentration of lipoproteins in the plasma, we name nicotinic acid, clofibrate, gemfibrozil, probucol and resins that scavenge bile acids such as cholestyramine and colestipol, and simvastatin.

Unfortunately, said drugs cause various side effects such as intense hot flushes, itching, peptic ulcers, hyperpigmentation of the skin, nausea, vomiting, hair loss, weakness, impotence and gastrointestinal disorders. Unlike these drugs, cloricromene can be administered over long periods of time without causing any side effects. Lastly, there are no tolerability data to support the use of scoparone in cholesterol-lowering therapies in humans, because the molecule has not been assessed in clinical trials of any kind.

DETAILED DESCRIPTION OF THE INVENTION

It has been found, surprisingly, that cloricromene is able to reduce cholesterol levels in the blood, and it can therefore be used to advantage in the preparation of pharmaceutical compositions with cholesterol-lowering activity.

This activity has proved to be particularly marked in patients suffering from vascular disorders and/or cholesterol levels of over 190 mg/dl.

TEST TO COMPARE THE TOLERABILITY AND CHOLESTEROL-LOWERING EFFECT OF CLORICROMENE AND SCOPARONE IN EXPERIMENTAL MODELS IN RABBIT

Test No. 1

A preliminary experiment was performed to assess the ability of cloricromene to reduce plasma levels of cholesterol and triglycerides in rabbits fed on a high-fat diet, treated chronically for 4-5 weeks. As reference product we used scoparone, as it is the only coumarin derivative of vegetable origin with a documented effect on these parameters.

The experimental model induces high levels of cholesterol and triglycerides in the plasma by a 1% cholesterol-enriched diet, simultaneously inducing diabetes

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by injection of alloxan, a highly toxic product for the β cells of the pancreas. In this way, it is possible to reach very high values of cholesterol and triglycerides in the system rapidly. The body weight of the animals and the plasma levels of the test parameters were assessed weekly throughout the experiment. The results of this preliminary experiment indicate that the group of rabbits treated with cloricromene present a body weight increase curve which is superimposable on control group of animals. which had diabetes hypercholesterolaemia but were not receiving any pharmacological treatment. Conversely, in the group of animals treated with scoparone, a marked and progressive reduction in body weight was observed in the animals, which indicated beyond doubt poor tolerability of the pharmacological treatment. The plasma levels of cholesterol and triglycerides too tended to be lower in the group treated with cloricromene than in the group treated with scoparone.

The results are reported in Figure 1.

These data highlight, in comparison to scoparone, cloricromene's absolute lack of toxic activity even when administered repeatedly over long periods of time. <u>Test No. 2</u>

In the same experimental model, in which a diabetic pathology is induced by treating the animals with alloxan, and hypercholesterolaemia is induced by administering a 1% cholesterol diet, we monitored at weekly intervals the cholesterol levels of the rabbits, which had been divided into the following treatment groups:

- 1. Control, treated with saline solution
- 2. Scoparone
- 25 3. Cloricromene

The results reported in Figure 2 show that cholesterol levels in the group of animals treated with cloricromene are markedly lower than those of both the control group and that treated with scoparone. The difference is evident as early as

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the third week of treatment. In this experiment, as in the previous one, the product proved to be practically free from any toxic effects: indeed, at the end of the experiment, the number of animals that completed the treatment with scoparone was considerably lower than the number of those treated with cloricromene.

5 Test No. 3

As further confirmation of this interesting result, we prepared another experimental model. In this case, hypercholesterolaemia was induced in rabbit by administration of a 0.1% cholesterol diet, without simultaneously inducing diabetes. In these experimental conditions, cholesterol levels of around 250 mg/dl were obtained, that is to say, values that are compatible with the pathological situation normally observed in humans affected by hypercholesterol. The rabbits were divided into three treatment groups: controls treated with saline, a second group receiving scoparone and a third receiving cloricromene. The results in this case too showed that cholesterol levels were markedly lower in the group treated with cloricromene than in the control group that received no treatment and in the group of animals which received scoparone (Figure 3).

CHOLESTEROL-LOWERING AND ANTITHROMBOTIC EFFECTS OF CLORICROMENE

We conducted a multicentre, double-blind, randomised study, controlled versus placebo, on 159 patients with Peripheral Vascular Disease (PVD) at Fontaine stage II, the classic symptom of which is Intermittent Claudication (IC).

PVD is a pathology involving thrombotic risk, and IC patients run a two- to fivefold greater risk of cardiovascular ischemic diseases than other subjects, with a particularly high mortality rate from myocardial infarct, stroke and thrombosis.

Hypercholesterolaemia is beyond doubt one of the risk factors in the genesis of the atherosclerotic processes that lead to the formation of atheromatous plaques.

It has also been demonstrated that vessel walls altered by atheromatous

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plaques may give rise to interactions of the endothelium with the circulating cells (mainly platelets and leukocytes) that trigger the thrombotic process.

In our study, besides assessing the effect of cloricromene on IC, we also studied the cholesterol-lowering effects of the drug and the incidence of major cardiovascular events (myocardial infarction, stroke, vascular death, progression to Fontaine stages III-IV) after a treatment period of six months.

In analysing the cholesterol-lowering effect, 117 patients were considered who presented cholesterol values at baseline of over 190 mg/dl.

The critical value of 190 mg/dl was selected on the basis of data from the international literature that report this value as the risk threshold in pathologies such as cardiac ischaemia and atherosclerosis in general, in which excessive cholesterol represents a real risk factor. Therefore, the patients who presented cholesterol values equal to or over 190 mg/dl were considered to be at risk from said pathologies.

For the purposes of this analysis, 58 patients were treated for 6 months with 200 mg of cloricromene per day (one capsule of 100 mg twice a day), while the remaining 59 patients were treated with placebo (Table). All the patients also took aspirin at a dose of 160 mg/day throughout the trial.

20 Table

Group	Cholesterol levels at Week 0	Cholesterol levels at week 24	p
Group treated with Cloricromene	243±31	229±32 ·	p=0.0035
Placebo group	234±30	234±39	p=ns

ns = not significant

From analysis of the covariance, the estimation of the difference between the treatment groups proves statistically significant in favour of the group treated with cloricromene (p=0.04, with a value of α =0.05).

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As regards the onset of severe events, no major cardiovascular events or deaths were observed in either group.

The results suggest that cloricromene may be useful in controlling thrombotic risk, by lowering cholesterol levels and inhibiting cellular interactions (endothelial cells, platelets, leukocytes) which might otherwise contribute towards the formation of thrombi, with the subsequent risk of major cardiovascular events.

FORMULATION EXAMPLES

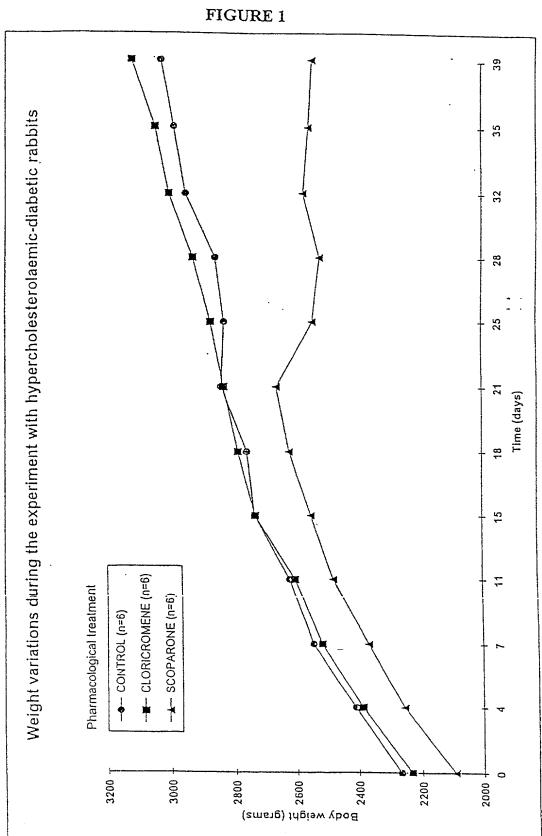
<u>Capsules</u>		
Cloricromene	100	mg
Saccharose	92.77	mg
Maize starch	30.93	mg
Magnesium stearate	34.6	mg
Povidone	25.48	mg
Monobasic potassium phosphate	20.8	mg
Cellulose acetate	95.42	mg
Gelatin container	77	mg
Injectable composition		
Cloricromeme hydrochloride	30	mg
Mannitol	30	mg
Sodium chloride	45	mg
Water for injection	5	ml

The formulations being thus described in detail, it is obvious that they can be modified in various ways. Such modifications are not to be considered as variations from the spirit and purpose of the invention, and any such modification which may appear obvious to an expert in the specific sector are to be considered as coming within the scope of the following claims.

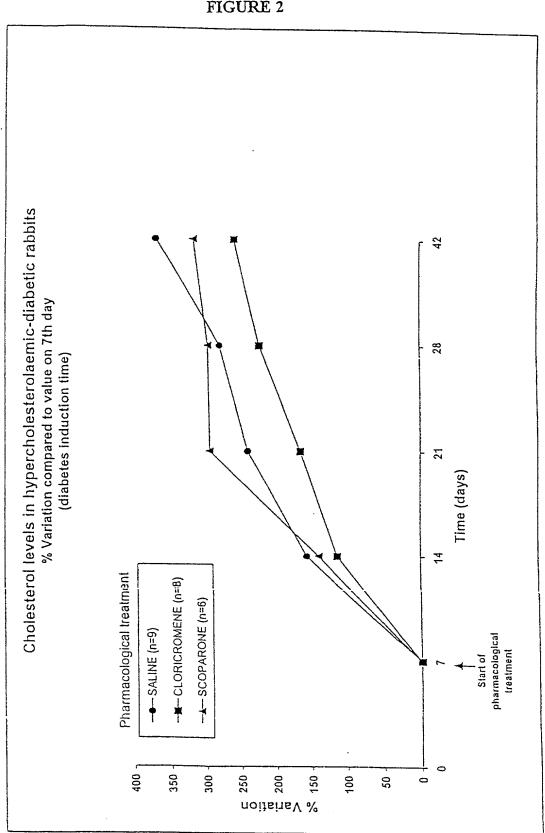
CLAIMS

- 1. Pharmaceutical compositions containing cloricromene base or a salt or derivative thereof for reducing cholesterol levels in patients suffering from hypercholesterolaemia.
- 2. Use of cloricromene base and / or its relative salts and derivatives for the preparation of pharmaceutical compositions with cholesterol-lowering activity.
- 3. Use of cloricromene base and / or its salts and derivatives for the preparation of pharmaceutical compositions with cholesterol-lowering and antithrombotic activity.
- 4. Use of cloricromene base and relative salts and derivatives for the preparation of pharmaceutical compositions with cholesterol-lowering activity in patients with cholesterol levels in the plasma of over 190 mg/dl.
- 5. Use according to claims 1 4, wherein the pharmaceutical compositions are in the form of capsules, tablets, injectable solutions, controlled release systems, transdermal systems.
- 6. Use according to the present claims, wherein the cloricromene salt is sodium hydrochloride.

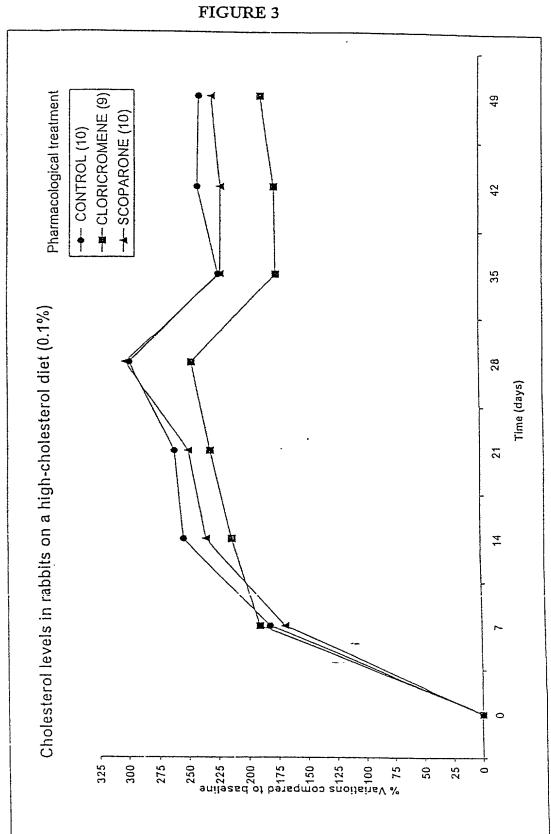
1/3 **FIGURE 1**



2/3
FIGURE 2



3/3
FIGURE 3



Attorney Docket No.:

BIRCH, STEWART, KOLASCH & BIRCH, LLP

0471-0268P

PLEASE NOTE: YOU MUST COMPLETE THE FOLLOWING P.O. Box 747, Falls Church, Virginia 22040-0747 Telephone: (703) 205-8000 · Facsimile: (703) 205-8050

COMBINED DECLARATION AND POWER OF ATTORNEY FOR PATENT AND DESIGN APPLICATIONS

As a below named inventor, I hereby declare that: my residence, post office address and citizenship are as stated next to my name; that I verily believe that I am the original, first and sole inventor (if only one inventor is named below) or an original, first and joint inventor (if plural inventors are named below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

Insert Title:	Pharmaceutica	l compo	sitions	conta	ining 8	8-chloro	-3(ß-diet	hy1	aminoet	hy.
	the specification of wh the specification v United States Appl and amended on the specification v International Appl amended under PC	ich is attacl	hed hereta If	f not attach	nd horoto					*
	I hereby state the including the claims, a I acknowledge the of Federal Regulations, I do not know and or our invention there invention thereof or mate the United States of An or made the subject of the United States of Armonths (six months fertificate on this investificate on this investificate on the or material in the polication by me or material in the polication for patent is claimed:	at I have a samended duty to dis §1.56. do not beli of, or pater ore than on nerica more an inventor designs, ention has have legal represent or inventor or inventor.	eviewed and by any amend close informa	i understar dment refer ation which	id the cor red to abo	ntents of the ve.	above-identifi	ed sp	ecification	
Insert Priority	Prior Foreign Applica	ation(s)					Prior	ity Cl	aimed	
(if appropriate)	PD99A000128 (Number)	<u>Ita</u> (Country)	.ly		14.06. (Month/Da	. 1999 ny/Year Filed)	[∑i ′es	□ No	
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	(Number)	(Country)			(Month/Da	y/Year Filed)	_ [``] 'es	□ No	
	I hereby claim the bapplications(s) listed be	enefit unde elow.	er Title 35,	United Sta	ites Code,	, §119(e) of	any United St	ates]	provisional	! .
Insert Provisional Application(s): (if any)	(Application Number)				(Filing	Date)		<u>-</u>		
	(Application Number)				(Filing	Date)				
	All Foreign Application Designs) Prior to the Fil	s, if any, fo ling Date of	or any Patent This Applica	or Invento tion:	r's Certific	ate Filed More	e than 12 Mont	hs (6	Months for	ı
Insert Requested Information:	Country		Application	Number		Date of Filin	g (Month/Day/	rear)		
(if appropriate)	I hereby claim the bene listed below and, insof prior United States and Code, §112, I acknowl Title 37, Code of Fed application and the nat	fit under To ar as the so or PCT app edge the do leral Regula ional or PCT	itle 35, Unite ubject matte lication in th ity to disclos itions, §1.56 internationa	d States Co r of each o le manner p se informat s which be al filing date	de, §120 of the clain rovided by ion which came avai	of any United S of this app of the first para is material to ilable between oplication.	States and/or Polication is not agraph of Title the patentabil the filing da	CT app disclosed 35, Unity as ity as	plication(s) sed in the sited States defined in the prior	
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	(Application Number)		(Filing Date)			(Status - pate	ented, pending,	abano	loned)	

0471-0268P Attorney Docket No.:

I hereby appoint the following attorneys to prosecute this application and/or an international application based on this application and to transact all business in the Patent and Trademark Office connected therewith and in connection with the resulting patent based on instructions received from the entity who first sent the application papers to the attorneys identified below, unless the inventor(s) or assignee provides said attorneys with a written notice to the contrary:

Raymond C. Stewart	(Reg. No. 21,066)	Terrell C. Birch James M. Slattery Michael K. Mutter Gerald M. Murphy, Jr. Terry L. Clark Marc S. Weiner Donald J. Daley John A. Castellano F. Prince Butler Richard J. Gallagher	(Reg. No. 19,382)
Joseph A. Kolasch	(Reg. No. 22,463)		(Reg. No. 28,380)
Bernard L. Sweeney	(Reg. No. 24,448)		(Reg. No. 29,680)
Charles Gorenstein	(Reg. No. 29,271)		(Reg. No. 28,977)
Leonard R. Svensson	(Reg. No. 30,330)		(Reg. No. 32,644)
Andrew D. Meikle	(Reg. No. 32,868)		(Reg. No. 32,181)
Joe McKinney Muncy	(Reg. No. 32,334)		(Reg. No. 34,313)
John W. Bailey	(Reg. No. 32,881)		(Reg. No. 35,094)
Gary D. Yacura	(Reg. No. 35,416)		(Reg. No. 25,166)
Fred S. Whisenhunt	(Reg. No. 24,378)		(Reg. No. 28,781)

Send Correspondence to:

BIRCH, STEWART, KOLASCH & BIRCH, LLP

or

Customer No. (2292

P.O. Box 747 · Falls Church, Virginia 22040-0747 Telephone: (703) 205-8000 · Facsimile: (703) 205-8050

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the

valuaty of the application of any patent iss	ued thereon.	iiui iaise state	ements may jeopardiz		
GIVEN NAME/FAMILY NAME	INVENTOR'S SIGNATURE		DATE*		
Carla DEVILLACOUA	0-1				
Carla BEVILACOUA	Laste for vector	ne	Nov 27, 2001		
Residence (City, State & Country)	V V	CITIZENSHII	P		
MONTEGROTTO TERME, Ita POST OFFICE ADDRESS (Complete Street Ad	aly I	Ita	lian		
		ountry)			
Via Po' 34 - MONTEGROTTO) TERME, Italy				
GIVEN NAME/FAMILY NAME 200	INVENTOR'S SIGNATURE		DATE*		
Giuseppe DI SANTE	durile to Loute	İ	Nov. 27. 2001		
Residence (City, State & Country)		CITIZENSHII	<u> </u>		
CADONEGHE, Italy	TX	Ital	ian		
POST OFFICE ADDRESS (Complete Street Ac	idress including City, State & C	ountry)	Lan		
Via Conche 85 - CADONEGH					
GIVEN NAME/FAMILY NAME	INVENTOR'S SIGNATURE		DATE*		
Mario FINESSO 3	Morio frais		New. 27, 2001		
Residence (City, State & Country)		CITIZENSHIP			
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Via E. De Amicis l - MON					
GIVEN NAME/FAMILY NAME	INVENTOR'S SIGNATURE	4	DATE*		
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GIVEN NAME/FAMILY NAME	INVENTOR'S SIGNATURE		DATE*		
			Dill		
Residence (City, State & Country)		CITIZENSHIP)		
	!				
POST OFFICE ADDRESS (Complete Street Ad	dress including City, State & Co	ountry)			
	~	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			

1442 PLEASE NOTE: YOU MUST COMPLETE THE FOLLOWING:

him

Full Name of First or Sole Inventor: Insert Name of Inventor Insert Date This Document is Signed

Insert Residence Insert Citizenship

Insert Post Office Address

Full Name of Second

Inventor, if any: see above

Full Name of Third Inventor, if any: see above

Hand Hand

Full Name of Fourth Inventor, if any: see above

Full Name of Fifth Inventor, if any: see above